



03/18/13

## Technical Report for

**Anderson, Mulholland & Associates**

**BMSMC, Building 5 Area, PR**

**SM04.00.06 Area E 1 CM**

**Accutest Job Number: JB30082**

**Sampling Dates: 02/27/13 - 02/28/13**

### Report to:

**Anderson, Mulholland & Associates**

**ttaylor@amaiconsult.com**

**ATTN: Terry Taylor**

**Total number of pages in report: 13**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

A handwritten signature in black ink that reads 'Nancy F. Cole'.

**Nancy Cole**  
**Laboratory Director**

**Client Service contact: Tammy McCloskey 732-329-0200**

Certifications: NJ(12129), NY(10983), CA, CT, DE, FL, IL, IN, KS, KY, LA, MA, MD, MI, MT, NC, OH VAP (CL0056), PA, RI, SC, TN, VA, WV

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Test results relate only to samples analyzed.

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## Sample Summary

Anderson, Mulholland & Associates

Job No: JB30082

BMSMC, Building 5 Area, PR

Project No: SM04.00.06 Area E 1 CM

Sample Number	Collected			Received	Matrix		Client Sample ID
	Date	Time	By		Code	Type	
JB30082-1	02/27/13	17:30	TT	03/01/13	SO	Soil	AREAEC_9BOT
JB30082-2	02/28/13	10:15	TT	03/01/13	SO	Soil	AREAEC_12BOT
JB30082-2D	02/28/13	10:15	TT	03/01/13	SO	Soil Dup/MSD	AREAEC_12BMSD
JB30082-2S	02/28/13	10:15	TT	03/01/13	SO	Soil Matrix Spike	AREAEC_12BMS
JB30082-3	02/28/13	11:55	TT	03/01/13	SO	Soil	AREAEC_13BOT

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Soil samples reported on a dry weight basis unless otherwise indicated on result page.

## CASE NARRATIVE / CONFORMANCE SUMMARY

**Client:** Anderson, Mulholland & Associates

**Job No** JB30082

**Site:** BMSMC, Building 5 Area, PR

**Report Date** 3/18/2013 9:29:59 AM

On 03/01/2013, 3 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at Accutest Laboratories at a temperature of 4 C. Samples were intact and chemically preserved, unless noted below. An Accutest Job Number of JB30082 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

### Volatiles by GCMS By Method SW846 8260B

**Matrix:** SO

**Batch ID:** VA7246

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB30109-9MS, JB30109-9MSD were used as the QC samples indicated.
- Matrix Spike Recovery(s) for Acetone are outside control limits. Outside control limits due to matrix interference.
- Matrix Spike Duplicate Recovery(s) for Acetone are outside control limits. Outside control limits due to matrix interference.
- RPD(s) for MS/MSD for Xylene (total) are outside control limits. Outside control limits due to matrix interference.

**Matrix:** SO

**Batch ID:** VA7248

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB30082-2MS, JB30082-2MSD were used as the QC samples indicated.
- Matrix Spike Recovery(s) for Acetone are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- Matrix Spike Duplicate Recovery(s) for Acetone are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- RPD(s) for MS/MSD for Acetone are outside control limits. Outside control limits due to matrix interference

### Wet Chemistry By Method SM2540 G-97

**Matrix:** SO

**Batch ID:** GN81321

- The data for SM2540 G-97 meets quality control requirements.

Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting Accutest's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

Accutest Laboratories is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by Accutest Laboratories indicated via signature on the report cover

## Summary of Hits

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Job Number: JB30082  
Account: Anderson, Mulholland & Associates  
Project: BMSMC, Building 5 Area, PR  
Collected: 02/27/13 thru 02/28/13

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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### JB30082-1 AREAEC\_9BOT

Benzene	2.8	1.1	0.13	ug/kg	SW846 8260B
Ethylbenzene	33.0	1.1	0.30	ug/kg	SW846 8260B
Toluene	0.34 J	1.1	0.12	ug/kg	SW846 8260B
Xylene (total)	115	1.1	0.16	ug/kg	SW846 8260B

### JB30082-2 AREAEC\_12BOT

Acetone	189	13	2.1	ug/kg	SW846 8260B
Benzene	1.6	1.3	0.15	ug/kg	SW846 8260B
Ethylbenzene	1.0 J	1.3	0.33	ug/kg	SW846 8260B
Xylene (total)	3.8	1.3	0.17	ug/kg	SW846 8260B

### JB30082-3 AREAEC\_13BOT

Acetone	60.6	13	2.2	ug/kg	SW846 8260B
Benzene	1.7	1.3	0.16	ug/kg	SW846 8260B
Ethylbenzene	13.5	1.3	0.35	ug/kg	SW846 8260B
Xylene (total)	54.3	1.3	0.18	ug/kg	SW846 8260B

## Sample Results

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## Report of Analysis

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## Report of Analysis

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Client Sample ID:	AREAEC_9BOT	Date Sampled:	02/27/13
Lab Sample ID:	JB30082-1	Date Received:	03/01/13
Matrix:	SO - Soil	Percent Solids:	86.6
Method:	SW846 8260B SW846 5035		
Project:	BMSMC, Building 5 Area, PR		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A192404.D	1	03/08/13	OTR	03/01/13 12:00	n/a	VA7246
Run #2							

Run #	Initial Weight
Run #1	5.1 g
Run #2	

## VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	11	1.9	ug/kg	
71-43-2	Benzene	2.8	1.1	0.13	ug/kg	
100-41-4	Ethylbenzene	33.0	1.1	0.30	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.7	0.85	ug/kg	
108-88-3	Toluene	0.34	1.1	0.12	ug/kg	J
1330-20-7	Xylene (total)	115	1.1	0.16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		70-130%
17060-07-0	1,2-Dichloroethane-D4	87%		70-122%
2037-26-5	Toluene-D8	109%		81-127%
460-00-4	4-Bromofluorobenzene	109%		66-132%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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Client Sample ID:	AREAEC_12BOT	Date Sampled:	02/28/13
Lab Sample ID:	JB30082-2	Date Received:	03/01/13
Matrix:	SO - Soil	Percent Solids:	86.5
Method:	SW846 8260B SW846 5035		
Project:	BMSMC, Building 5 Area, PR		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A192477.D	1	03/11/13	OTR	03/01/13 12:00	n/a	VA7248
Run #2							

Run #	Initial Weight
Run #1	4.6 g
Run #2	

## VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	189	13	2.1	ug/kg	
71-43-2	Benzene	1.6	1.3	0.15	ug/kg	
100-41-4	Ethylbenzene	1.0	1.3	0.33	ug/kg	J
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	6.3	0.94	ug/kg	
108-88-3	Toluene	ND	1.3	0.13	ug/kg	
1330-20-7	Xylene (total)	3.8	1.3	0.17	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		70-130%
17060-07-0	1,2-Dichloroethane-D4	90%		70-122%
2037-26-5	Toluene-D8	108%		81-127%
460-00-4	4-Bromofluorobenzene	110%		66-132%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

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Client Sample ID:	AREAEC_13BOT	Date Sampled:	02/28/13
Lab Sample ID:	JB30082-3	Date Received:	03/01/13
Matrix:	SO - Soil	Percent Solids:	75.8
Method:	SW846 8260B SW846 5035		
Project:	BMSMC, Building 5 Area, PR		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A192478.D	1	03/11/13	OTR	03/01/13 12:00	n/a	VA7248
Run #2							

Run #	Initial Weight
Run #1	5.0 g
Run #2	

## VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	60.6	13	2.2	ug/kg	
71-43-2	Benzene	1.7	1.3	0.16	ug/kg	
100-41-4	Ethylbenzene	13.5	1.3	0.35	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	6.6	0.99	ug/kg	
108-88-3	Toluene	ND	1.3	0.14	ug/kg	
1330-20-7	Xylene (total)	54.3	1.3	0.18	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		70-130%
17060-07-0	1,2-Dichloroethane-D4	91%		70-122%
2037-26-5	Toluene-D8	109%		81-127%
460-00-4	4-Bromofluorobenzene	108%		66-132%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Misc. Forms

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### Custody Documents and Other Forms

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Includes the following where applicable:

- Chain of Custody



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## 5.1

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## Accutest Laboratories Sample Receipt Summary

**Accutest Job Number:** JB30082      **Client:** \_\_\_\_\_      **Project:** \_\_\_\_\_  
**Date / Time Received:** 3/1/2013      **Delivery Method:** \_\_\_\_\_      **Airbill #s:** \_\_\_\_\_  
**Cooler Temps (Initial/Adjusted):** #1: (4/4); 0#2: (4/4); 0

**Cooler Security**

Y or N	Y or N
1. Custody Seals Present: <input checked="" type="checkbox"/> <input type="checkbox"/>	3. COC Present: <input checked="" type="checkbox"/> <input type="checkbox"/>
2. Custody Seals Intact: <input checked="" type="checkbox"/> <input type="checkbox"/>	4. Smpl Dates/Time OK <input checked="" type="checkbox"/> <input type="checkbox"/>

**Cooler Temperature**

Y or N
1. Temp criteria achieved: <input checked="" type="checkbox"/> <input type="checkbox"/>
2. Cooler temp verification: IR Gun
3. Cooler media: Ice (Bag)
4. No. Coolers: 2

**Quality Control Preservation**

Y or N	N/A
1. Trip Blank present / cooler: <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	
2. Trip Blank listed on COC: <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	
3. Samples preserved properly: <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
4. VOCs headspace free: <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	

**Sample Integrity - Documentation**

Y or N
1. Sample labels present on bottles: <input checked="" type="checkbox"/> <input type="checkbox"/>
2. Container labeling complete: <input checked="" type="checkbox"/> <input type="checkbox"/>
3. Sample container label / COC agree: <input checked="" type="checkbox"/> <input type="checkbox"/>

**Sample Integrity - Condition**

Y or N
1. Sample recvd within HT: <input checked="" type="checkbox"/> <input type="checkbox"/>
2. All containers accounted for: <input checked="" type="checkbox"/> <input type="checkbox"/>
3. Condition of sample: Intact

**Sample Integrity - Instructions**

Y or N	N/A
1. Analysis requested is clear: <input checked="" type="checkbox"/> <input type="checkbox"/>	
2. Bottles received for unspecified tests: <input type="checkbox"/> <input checked="" type="checkbox"/>	
3. Sufficient volume recvd for analysis: <input checked="" type="checkbox"/> <input type="checkbox"/>	
4. Compositing instructions clear: <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	
5. Filtering instructions clear: <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>	

Comments

Job Change Order: JB30082\_3\_15\_2013

Requested Date:	3/15/2013	Received Date:	3/1/2013
Account Name:	Anderson, Mulholland &	Due Date:	3/15/2013
Project	BMSMC, Building 5 Area, PR	Deliverable:	FULT1
CSR:	michello	TAT (Days):	14

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Sample #: JB30082-All  
Dept:  
Dept:

Change:  
Please relog for D8015IPA & DGC+METH. OK to  
run out of hold time.

=====

Above Changes Per: Terry Taylor Date: 3/15/2013

To Client: This Change Order is confirmation of the revisions, previously discussed with the Accutest Client Service

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